

## Recombinant Mouse Prostatic Acid Phosphatase Protein(Fc Tag)

**Catalog Number:** PDMM100101

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

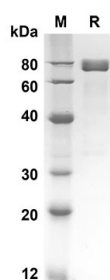
### Description

<b>Species</b>	Mouse
<b>Source</b>	Mammalian-derived Mouse Prostatic Acid Phosphatase/ACPP proteins Met1-Asn381, with an C-terminal Fc
<b>Calculated MW</b>	66.8 kDa
<b>Observed MW</b>	80 kDa
<b>Accession</b>	Q8CE08
<b>Bio-activity</b>	Not validated for activity

### Properties

<b>Purity</b>	> 90% as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU/mg of the protein as determined by the LAL method
<b>Storage</b>	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 °C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with 5% Trehalose and 5% Mannitol.
<b>Reconstitution</b>	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis.

### Data



SDS-PAGE analysis of Mouse Prostatic Acid Phosphatase/PPAP proteins, 2 µg/lane of Recombinant Mouse Prostatic Acid Phosphatase/PPAP proteins was resolved with an SDS-PAGE under reducing conditions, showing bands at 66.8KD

### Background

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ACPP (Acid phosphatase, prostate, also PAP and ACP3) is a 48-52 kDa glycoprotein member of the histidine acid phosphatase family of enzymes. It exists as a 95-100 kDa nondisulfide-linked homodimer that hydrolyzes phosphate esters under low pH to generate free phosphate. ACPP is expressed by prostate epithelium and pain-detecting spinal cord neurons. In the spinal cord, ACPP dephosphorylates AMP. This generates adenosine which acts as a strong analgesic agent. Mature Human ACPP is 354 amino acids (aa) in length (aa 33-386). It contains one histidine phosphatase domain (aa 34-332), plus a nucleophile acceptor site at His44, and a proton donor site at Asp290. There are two potential alternative splice variants. One shows a deletion of aa 153-185, while another is transmembrane (previously called TMPase) and shows a 38 aa substitution for the C-terminal seven amino acids. Over aa 33-379, Human ACPP shares 84% aa identity with an Mouse ACPP.